PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS JANUARY 1991

PACKAGING DRUGS FOR HOSPITALS

Short Runs Drive Changes

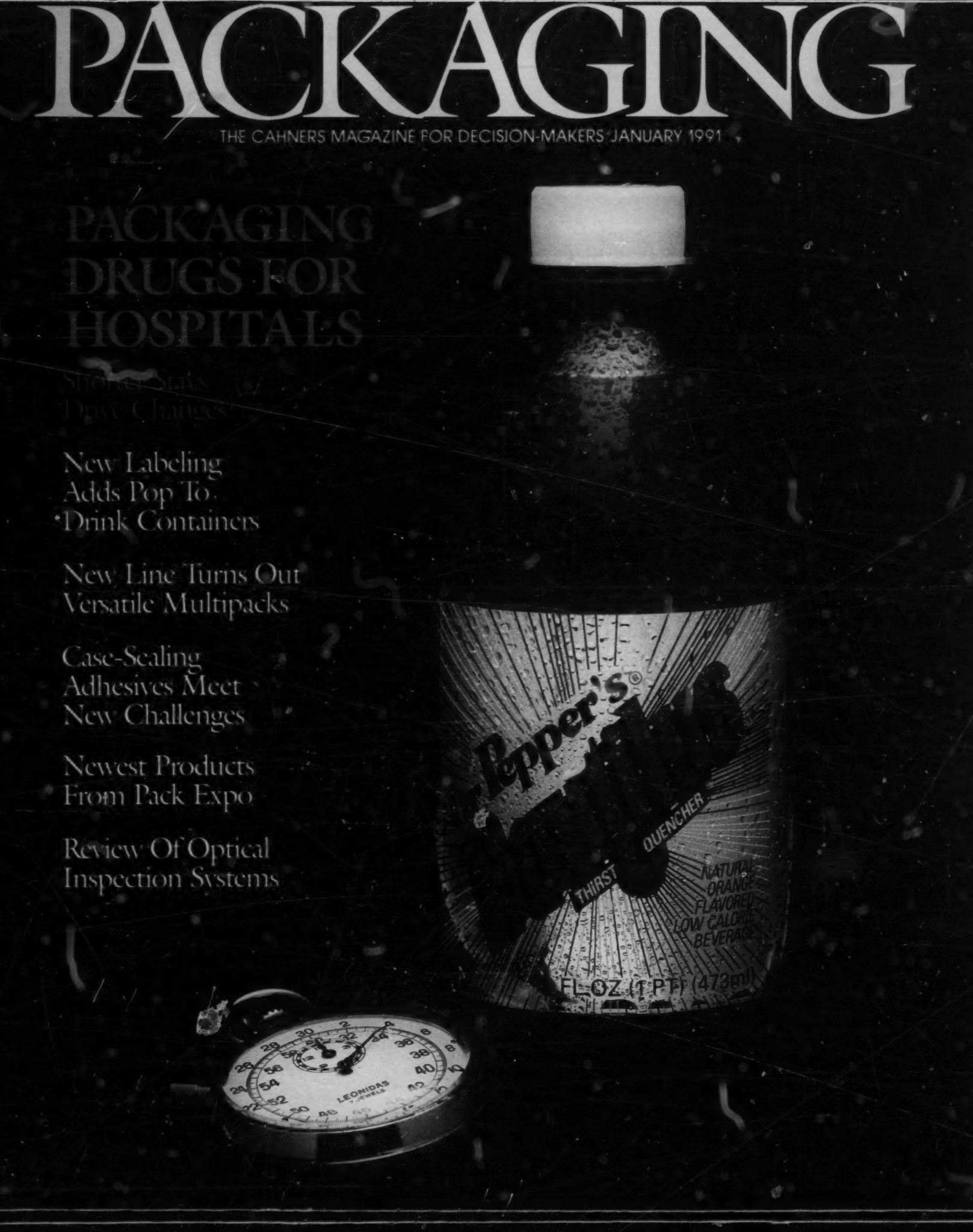
New Labeling Adds Pop To Drink Containers

New Line Turns Out Versatile Multipacks

Case-Sealing Adhesives Meet New Challenges

Newest Products From Pack Expo

Review Of Optical Inspection Systems



BREAKING NEWS

Machuga, but that's unlikely. In the meantime, he says, "We're not taking immediate action on susceptors, and that suggests we haven't found an acute problem." For a complete discussion of issues behind the susceptor study, see PACKAGING, October 1989.

Food group requests delay in label changes: The National Food Processors Association, Washington, D.C., has told the FDA that industry needs more time to implement changes in nutritional labeling of foods. NFPA officials say the 1990 Nutritional Labeling and Education Act allows the FDA to extend the effective date beyond its proposed deadline of mid-1992. The association is urging the FDA to give industry until May 8, 1993, to obtain needed data and manufacture new labels.

Plastics society releases year-end statistics: The Society of the Plastics Industry Inc., Washington, D.C., reports in its year-end estimates that domestic production of plastic resins totaled 61.9 billion pounds in 1990—a 5.7% increase from 1989. Sales of polyolefins as a group increased by 8.4% during 1990, says the group. HDPE, not fully recovered from capacity lost in '89, ended the year with sales up 3.2%. Overall, PVC sales grew by 9%.

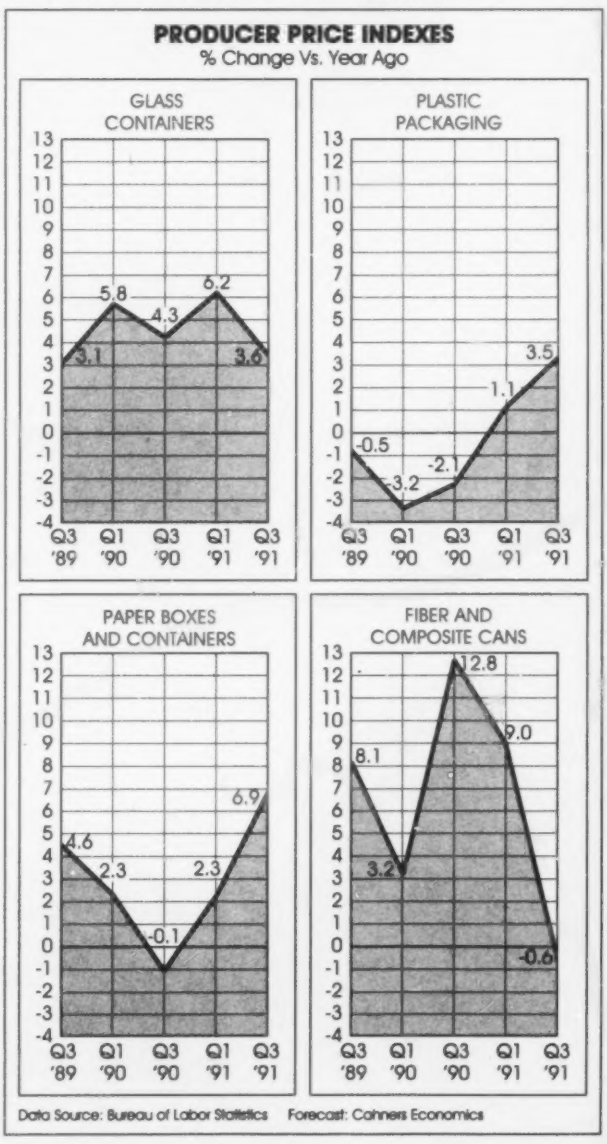
Closure organization publishes guidebook: The Closure Manufacturers Association has published a new booklet titled *Closure Guides*, which comprises information on metal and plastic closures. Descriptions and functions of closures are included along with applications. Packaged in a three-ring binder, the guide costs $40 a copy. To order a copy, write the CMA at 1801 K St. N.W., Suite 1105L, Washington DC 20006.

Fragrance carton sports hologram: The Flexible Packaging Div. of Reynolds Metals Co., Richmond, Va., has introduced what is said to be the first holographic gift carton for the fragrance industry. Quintessence Inc., Chicago, has begun marketing a collection of fragrances in cartons carrying three-dimensional images on film. The holographic diamond pattern was created by American Bank Note Holographics Inc., Elmsford, N.Y.

Closure maker enters Polish joint venture: White Cap Europe, the vacuum closure division of Continental Can Europe, has announced formation of a joint venture with Polish packaging company Opakomet, called Continental-Opakomet White Cap. The new company will manufacture and sell White Cap vacuum closures in Poland and elsewhere in Eastern Europe.

PRICES: TWO UP, TWO DOWN

Price trends for four key packaging materials are mixed as we enter a new year. Through mid-year, price increases should moderate for glass containers and composite cans—both of which have shown reasonably strong gains in recent months. Prices for most plastics and corrugated containers, on the other hand, are expected to begin rising toward summer. Still, plastic price rises have been moderate given the Mideast situation. The increases for corrugated are related to Cahners projections for an improving economy.

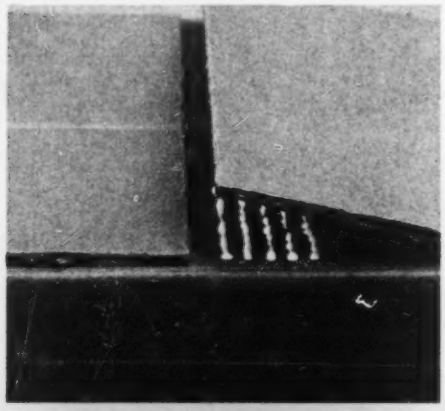


Data Source: Bureau of Labor Statistics Forecast: Cahners Economics

PACKAGING

A CAHNERS PUBLICATION
VOLUME 36 NUMBER 1

Pharmaceutical blisters: Unit-dose packaging helps hospitals avoid drug mixups.
Page **30**



Advances in adhesives combine hot-melt and cold-glue to add strength.
Page **41**

Updated weigh/filler reduces overfills and checkweighing for White Rain.
Page **36**

On the cover: Dr Pepper's Nautilus shines with metallized polyester labels from Cellu-Craft Inc. Photo by Bob Hart.
Page **14**

PACKAGING FEATURES

NEWS

New labeling techniques drive beverage sales 14

Shrink-film on metal cans, ceramics on glass, polyester labels on PET push container decoration options forward

SPECIAL REPORTS

Drug packages hospitals want 30

No more pills in paper cups. Patient safety, short staffing spell a boom for unit-dose packaging

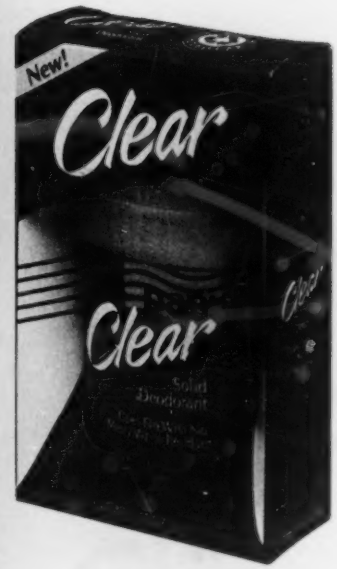
Pack Expo '90 New Products Review 51

Here's a selection of new equipment, material and container innovations displayed at the show

LINE OF THE MONTH

New line makes versatile multipacks 36

Breakable case boosts line speeds for White Rain, creates bulk pack retailers want



PET container and transparent polyester label let Ban's new clear-gel deodorant show through. Page **20**

PRODUCT BREAKTHROUGHS

Case-sealing adhesives meet new packaging challenges 41

Users demand increased efficiency, and recyclers want improved repulpability

PRODUCT REVIEW

What to look for in optical inspection systems 47

From photo sensors to machine vision, artificial systems surpass human eyes for accurate package inspection

PACKAGING NEWS

Liquid deodorant bows in composite can 19
Reusable atomizer tops recycled-paper tube from Switzerland

Kool-Aid bottles sport flexible necks 19
Squeezable LDPE containers have embossed labels

Gas-grill case wins FTA preprint honors 20
Corrugated case for Bradley Char-Broil takes first place

OPP films top winning packages 20
Cookies, soap take Mobil's Golden Mummy Awards

Recycled polycarbonate finds markets 25
Architectural building blocks, bottle carriers are first applications

Most states fall short of recycling goals 25
Many just beginning curbside-separation programs

PACKAGING TECHNOLOGY

Shrink-tunnel reduces product damage 76
Push-button changeover done in seconds

Product visibility reels in savings 76
Clamshell's inner tray speeds up packaging of fishing reels

DEPARTMENTS

BREAKING NEWS	1	NEWS BRIEFS	80
EDITORIAL	11	CALENDAR	80
ON THE LINE	12	PEOPLE	82
ENVIRONMENTAL NEWS	25	CLASSIFIED	83
PACKAGING EQUIPMENT	60	ADVERTISERS INDEX	92
PACKAGING MATERIALS	62	READER SERVICE CARD	93

THE STAFF

JOHN BLATNIK
Publisher

R. BRUCE HOLMGREN
Editorial Director

ROBIN ASHTON
Editor in Chief

MERLE MULLINS
Managing Editor/Production

GREG ERICKSON
Managing Editor

MELISSA LARSON
Senior Editor

MARK SPAULDING
Senior Editor

LISA McTIGUE PIERCE
Staff Editor

JUDY WHITT
Director of Art Department

GLEN LUENSMAN
Assoc. Dir., Art Department

PATTY CAHILL
Senior Art Director

GARY PAYNE
Associate Art Director

GILBERT MUÑOZ
Director of Graphic Production

RALPH A. BURRIS
Production Supervisor

KATHY KIKKE
Advertising Production Manager

NANCY COOPER
Director of Advertising Contracts

KRIS CUNNINGHAM
Circulation Manager (Denver)

EDITORIAL OFFICES
DES PLAINES, ILL.
60017-5080
Cahners Plaza
1350 E. Touhy Ave.
P.O. Box 5080
708/635-8800

ERNIE KUMMER
Dir. Corp. Reprint Services

M.R. ROBINSON
Vice President Research
Bureau of Marketing Research

LARRY HAYS
Research Director

KATE JERNEY
Administrative Services

MARY WILLIAMS
Manager, Marketing Services

CHARLES E. MOODHE
Senior Vice President/
General Manager
Chicago Division

ADVERTISING SALES OFFICES

DES PLAINES, ILL. 60017-5080
Cahners Publishing Co.
1350 E. Touhy Ave. P.O. Box 5080

John Blatnik
Publisher

Edwin O. Landon
Jim Harvey
(708) 635-8800
Fax: (708) 635-6856

WEST COAST SALES
Jim Harvey

NEW YORK CITY
Denise Camens
(212)463-6418
Fax: (212) 463-6404

NEW JERSEY
Denise Camens

NEW YORK, NY 10011-5381
Cahners Publishing Co.
249 W. 17th St.
(212) 645-0067
Fax: (212) 242-6987

WAYNE, PA. 19087-1749
Cahners Publishing Co.
487 Devon Park Dr.
Suite 206
(215) 293-1212
Fax: (215) 293-0359

Steve Osborne
(215) 293-1212

ATLANTA, GA.
Steve Osborne

STAMFORD, CONN. 06904-2277
Cahners Publishing Co.
8 Stamford Forum
P.O. Box 10277
(203) 325-2500
Fax: (203) 357-9258

Raymond J. Kish
(203) 328-2580

CLASSIFIED RECRUITMENT
Carole Young Orlando
Manager
Cahners Plaza
1350 E. Touhy Ave. P.O. Box 5080
Des Plaines, Ill. 60017-5080
Fax: (708) 635-6856

EUROPE
Stuart Smith
Cahners Publishing Co.
27 Paul Street
London EC2A4JU
ENGLAND
Telephone 01-4471-628 7030
Telex 914911
Fax: 01-628 5984

TAIWAN
Mayco T.S. Lou
International Services, Inc.
RM 902,2, Chung Hsiao
P.O. Box 53-1039
Sec. 4, Taipei, Taiwan R.O.C.
Telex: (785) 13340
Phone: 02-7768196

ISRAEL
Asa Talbar
Talbar Media
P.O. Box 22917
Tel Aviv 61228
Israel

Pam Raca
Advertising Services Mgr.
Cahners Plaza
1350 E. Touhy Ave. P.O. Box 5080
Des Plaines, Ill. 60017-5080
(708) 635-8800
Fax: (708) 635-6856

Circle No.		Page No.
37	AB Lasers	58
34	AFM Corp.	56
28	AVI, Astro-Valcour, Inc.	46
49	Alcoa Recycling Co.	71
8	Alloyd Co., Inc.	13
18	American Iron & Steel Institute	28-29
50	Auger Fabrication, Inc.	72
64	Automated Packaging Systems, Inc.	IBC
1	Baldor Motors	IFC
	Cahners Exposition Group	65
65*	**Calmar, Inc.**	BC
46	Canon Copier	64
	Classified Advertising	83-91
67-68*	**Control Print, Division of Dennison Co.**	55
36	Creative Packaging Corp.	58
27	Cryovac, Division of W.R. Grace	44-45
61*	**Doboy Packaging Machinery**	81
29	DuPont Co.—Packaging Products - Surlyn	48-49
11*	**Eastman Chemical Products Inc.**	21
60*	**Edson Pkg. Machine**	80
47	Emplex Systems, Inc.	70
54	Enercon	74
19	Fabri-Kal Corp	33
42	Fina Oil & Chemical	63
43	Formost Packaging Machines Inc.	53
25-26	Gast Manufacturing	43
2	Georgia Pacific	3
44*	**Griffin-Rutgers Co., Inc.**	53
56	Hayssen Mfg. Co.	75
20	Himont, Inc.	34-35
38*	**IWKA Packaging Machine Corp.**	59
63	International Packaging Machines, Inc.	82
3	Klockner-Pentaplast	4-5
14*	**Krones**	24
57*	**Longford Equipment Int'l Ltd.**	77
13	Lumonics Marking Corp.	23
10	M. Calosso & Son, Inc.	18
16	MGS Machine Corp.	26
12*	**Magenta Corp.**	22
90-94	Markem Corp.	78
9*	**Matthews Inter'l**	17
39	Ontario Foods, Inc.	61
6*	**PDC International**	11
30	Paxall Group, Inc., The	50
48	Perl Machinery	70
40	Placon	60
41	Plastofilm Ind.	62
15	Polytype America, Corp.	26
33	Printpack Inc.	73
17*	**Quantum Chemical Corp., USI Division**	27
31*	**Raymond Automation Co.**	69
5	Shell Chemical Co.	10
62	Tharo Systems, Inc.	82
21-23*	**Thiele Engineering**	38-39
45	Topflight Corp.	68
35*	**Triangle Package Machinery Co.**	57
7	Tri-Seal International, Inc.	12
52*	**United Resin Products, Inc.**	72
24	Van Blarcom Closures, Inc.	40
51*	**Vertrod Corp.**	72
32	Weatherchem Corp.	54
4	Westvaco	8-9
55	Zerand-Bernal Group, Stevens Graphics, Corp.	74

PHOTOCREDITS

Cover: Bob Hart. **Labels:** Jack Grossman, Images Photographics. **Pharmaceuticals:** Jack Grossman, Images Photographics. **Line of the Month: Gillette:** Chris Murrow. **Case-Sealing Adhesives:** Jack Grossman, Images Photographics.

*Indicates Advertiser in Packaging 1990 Buyers Guide.

Cahners Publishing Company, A Division of Reed Publishing USA ☐ Specialized Business Magazines for Building & Construction ☐ Research ☐ Technology ☐ Electronics ☐ Computing ☐ Printing ☐ Publishing ☐ Health Care ☐ Foodservice ☐ Packaging ☐ Environmental Engineering ☐ Manufacturing ☐ Entertainment ☐ Home Furnishings ☐ and Interior Design. Specialized Consumer Magazines for Child Care ☐ Boating ☐ and Wedding Planning.

PACKAGING formerly Package Engineering including Modern Packaging (ISSN 0746-3820) is published monthly except semi-monthly in March and June by The Cahners Publishing Company, (Subscription includes all issues). Cahners Publishing Company is a Division of Reed Publishing USA, 275 Washington Street, Newton MA 02158-1630. Terrence M. McDermott, President; Charles E. Moodhe, Senior Vice President/General Manager, Chicago Division; Jerry D. Neth, Senior Vice President/Publishing Operations; J.J. Walsh, Senior Vice President/Finance; Thomas J. Dellamaria, Senior Vice President/Production and Manufacturing; Ralph Knupp, Vice President/Human Resources. Circulation records dare maintained at Cahners Publishing Company, 44 Cook Street, Denver, CO 80206-5800. Phone 303/388-4511. Second-class postage paid at Denver, CO 80206-5800 and additional mailing offices. Postmaster: Send address corrections to PACKAGING, P.O. Box 173377, Denver, CO 80217-3377. PACKAGING formerly Package Engineering including Modern Packaging, copyright 1991 by Reed Publishing USA; Ronald G. Segel, Chairman and Chief Executive Officer; Robert L. Krakoff, President and Chief Operating Officer; William M. Platt, Senior Vice President. PACKAGING formerly Package Engineering including Modern Packaging is distributed throughout the United States to executives with buying and specifying responsibility for packaging machinery, containers, materials and supplies. Annual subscription rates for non-qualified people: USA, 1 year: $84.95, 2 years, $159.95; Canada/Mexico, 1 year: $114.95, 2 years, $214.95; other countries, 1 year, $149.95; $219.95 air mail; 2 years $279.95, $419.95 air mail. Single copies of the Product Sources Guide, $30. Single copies of the Packaging Line Planning Guide, $30. Single copies of regular issues are available for $10, $10 and $10 (USA, Canada/Mexico and foreign). Please address all subscription mail to Kris Cunningham, 44 Cook Street, Denver, Colorado, 80206-5800. REPRINTS OF PACKAGING formerly Package Engineering including Modern Packaging articles are available in quantities of 500 or more. For a specific quotation, contact Andrea Marwitz, Cahners Plaza, 1350 E. Touhy Avenue, P.O. Box 5080, Des Plaines, Ill. 60017-5080; 708/635-8800.